

Appendix II

Alignment of instant SEQ ID NO: 1 with SEQ ID NO: 1479 of Tang et al.

<!--StartFragment-->RESULT 2

AAM78817

ID AAM78817 standard; protein; 956 AA.

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AC AAM78817;

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DT 06-NOV-2001 (first entry)

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DE Human protein SEQ ID NO 1479.

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KW Human; cytokine; cell proliferation; cell differentiation; gene therapy;

KW vaccine; peptide therapy; stem cell growth factor; haematopoiesis;

KW tissue growth factor; immunomodulatory; cancer; leukaemia;

KW nervous system disorder; arthritis; inflammation.

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OS Homo sapiens.

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PN WO200157190-A2.

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PD 09-AUG-2001.

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PF 05-FEB-2001; 2001WO-US004098.

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PR 03-FEB-2000; 2000US-00496914.

PR 27-APR-2000; 2000US-00560875.

PR 20-JUN-2000; 2000US-00598075.

PR 19-JUL-2000; 2000US-00620325.

PR 01-SEP-2000; 2000US-00654936.

PR 15-SEP-2000; 2000US-00663561.

PR 20-OCT-2000; 2000US-00693325.

PR 30-NOV-2000; 2000US-00728422.

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PA (HYSE-) HYSEQ INC.

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PI Tang YT, Liu C, Drmanac RT, Asundi V, Zhou P, Xu C, Cao Y;

PI Ma Y, Zhao QA, Wang D, Wang J, Zhang J, Ren F, Chen R, Wang ZW;

PI Xue AJ, Yang Y, Wejhrman T, Goodrich R;

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DR WPI; 2001-476283/51.

DR N-PSDB; AAK51950.

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PT Nucleic acids encoding polypeptides with cytokine-like activities, useful
PT in diagnosis and gene therapy.

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PS Claim 20; Page 3755-3757; 6221pp; English.

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CC The invention relates to polynucleotides (AAK51456-AAK53435) and the
CC encoded polypeptides (AAM78323-AAM80302) that exhibit activity relating to
CC cytokine, cell proliferation or cell differentiation or which may induce
CC production of other cytokines in other cell populations. The
CC polynucleotides and polypeptides are useful in gene therapy, vaccines or
CC peptide therapy. The polypeptides have various cytokine-like activities,
CC e.g. stem cell growth factor activity, haematopoiesis regulating
CC activity, tissue growth factor activity, immunomodulatory activity and
CC activin/inhibin activity and may be useful in the diagnosis and/or
CC treatment of cancer, leukaemia, nervous system disorders, arthritis and
CC inflammation. Note: Records for SEQ ID NO 2110 (AAK52581), 2111
CC (AAK52582) and 3666 (AAM80020) are omitted as the relevant pages from the
CC sequence listing were missing at the time of publication

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SQ Sequence 956 AA;

Query Match 99.9%; Score 4990; DB 4; Length 956;
 Best Local Similarity 99.9%; Pred. No. 0;
 Matches 955; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

| | | | |
|----|-----|---|-----|
| Qy | 1 | MASKRKSTTPCMIPVKTIVLQDASMEAQPAETLPEGPQQDLPPEASAASSEAAQNPSSTD | 60 |
| | | | |
| Db | 1 | MASKRKSTTPCMIPVKTIVLQDASMEAQPAETLPEGPQQDLPPEASAASSEAAQNPSSTD | 60 |
| Qy | 61 | GSTLANGHRSTLDGYLYSCKYCDFRSHDMTQFVGHMNSEHTDFNKDPTFVCSGC SFLAKT | 120 |
| | | | |
| Db | 61 | GSTLANGHRSTLDGYLYSCKYCDFRSHDMTQFVGHMNSEHTDFNKDPTFVCSGC SFLAKT | 120 |
| Qy | 121 | PEGLSLHNATCHSGEASFVWNVAKPDNHVVVEQSIPESTSTPDLAGEPSAEGADGQAEII | 180 |
| | | | |
| Db | 121 | PEGLSLHNATCHSGEASFVWNVAKPDNHVVVEQSIPESTSTPDLAGEPSAEGADGQAEII | 180 |
| Qy | 181 | ITKTPIMKIMKGKAEAKKIHTLKENVPSQPVGEALPKLSTGEMEVREGDHSFINGAVPVS | 240 |
| | | | |
| Db | 181 | ITKTPIMKIMKGKAEAKKIHTLKENVPSQPVGEALPKLSTGEMEVREGDHSFINGAVPVS | 240 |
| Qy | 241 | QASASSAKNPHAANGPLIGTVPLPAGIAQFLSLQQQPPVHAQHVVHQLPTAKALPKVM | 300 |
| | | | |
| Db | 241 | QASASSAKNPHAANGPLIGTVPLPAGIAQFLSLQQQPPVHAQHVVHQLPTAKALPKVM | 300 |
| Qy | 301 | IPLSSIPTYNAAMDSNSFLKNSFHKFPYPTKAELCYLTVVTKYPEEQLKIWFTAQRLKQG | 360 |
| | | : | |
| Db | 301 | IPLSSIPTYSAAMDSNSFLKNSFHKFPYPTKAELCYLTVVTKYPEEQLKIWFTAQRLKQG | 360 |
| Qy | 361 | ISWSPEEIEDARKKMFNTVIQSVQPTITVLNTPLVASAGNVQHLIQAALPGHVVGQPEG | 420 |
| | | | |
| Db | 361 | ISWSPEEIEDARKKMFNTVIQSVQPTITVLNTPLVASAGNVQHLIQAALPGHVVGQPEG | 420 |
| Qy | 421 | TGGGLLVTTQPLMANGLOATSSPLPLTVTSVPKQPGVAPINTVCSNTTSAVKVNNAAQSLL | 480 |
| | | | |
| Db | 421 | TGGGLLVTTQPLMANGLOATSSPLPLTVTSVPKQPGVAPINTVCSNTTSAVKVNNAAQSLL | 480 |
| Qy | 481 | TACPSITSQAFLDASIYKNKKSHEQLSALKGSFCRNQFPGQSEVEHLTKVTGLSTREVRK | 540 |
| | | | |
| Db | 481 | TACPSITSQAFLDASIYKNKKSHEQLSALKGSFCRNQFPGQSEVEHLTKVTGLSTREVRK | 540 |
| Qy | 541 | WFSDDRYHCRNLKGSRAMIPGDHSSIIIDSVPEVSFSPSSKVPEVTCIPTTATLATHPSA | 600 |
| | | | |
| Db | 541 | WFSDDRYHCRNLKGSRAMIPGDHSSIIIDSVPEVSFSPSSKVPEVTCIPTTATLATHPSA | 600 |
| Qy | 601 | KRQSWHQTPDFTPTKYKERAPEQLRALESSFAQNPLPLDEELDRLRSETKMTRREIDSWF | 660 |
| | | | |
| Db | 601 | KRQSWHQTPDFTPTKYKERAPEQLRALESSFAQNPLPLDEELDRLRSETKMTRREIDSWF | 660 |
| Qy | 661 | SERRKKVNAEETKKAENASQEEEEAAEDEGGEEDLASELRVSGENG SLEMPSSHILAER | 720 |
| | | | |
| Db | 661 | SERRKKVNAEETKKAENASQEEEEAAEDEGGEEDLASELRVSGENG SLEMPSSHILAER | 720 |
| Qy | 721 | KVSPIKINLKNLRVTEANGRNEIPGLGACDPEDDES NKLAEQLP GKV SCKKTAQQRHLLR | 780 |
| | | | |
| Db | 721 | KVSPIKINLKNLRVTEANGRNEIPGLGACDPEDDES NKLAEQLP GKV SCKKTAQQRHLLR | 780 |
| Qy | 781 | QLFVQTQWPSNQDYDSIMAQTGLPRPEVVRWF GDSRYALKN GQLK WYEDYKRGNFPPGLL | 840 |
| | | | |
| Db | 781 | QLFVQTQWPSNQDYDSIMAQTGLPRPEVVRWF GDSRYALKN GQLK WYEDYKRGNFPPGLL | 840 |

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|----|-----|--|-----|
| Qy | 841 | VIAPGNRELLQDY YMTHKMLY EEDLQNLCDKTQMSSQQVKQWFAEKMGEETRAVADTGSE | 900 |
| | | | |
| Db | 841 | VIAPGNRELLQDY YMTHKMLY EEDLQNLCDKTQMSSQQVKQWFAEKMGEETRAVADTGSE | 900 |
| Qy | 901 | DQGPGTGELTAVHKMGMDTYSEVSENSESWEPRVPEASSEPFDTSSPQAGRQLETD | 956 |
| | | | |
| Db | 901 | DQGPGTGELTAVHKMGMDTYSEVSENSESWEPRVPEASSEPFDTSSPQAGRQLETD | 956 |

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